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29. (Thrice Amended) A substrate according to claim 1 or claim 42 consisting of only two coating layers.

37. (Thrice Amended) A printing method comprising:
providing a substrate according to claim 1 or produced according to claim 30 or claim 45;
and
printing a toner image on the substrate.

REMARKS

The application contains claims 1-3, 7-12, 14-30, 32 and 37-42 and 45. Claims 30 and 45 and 37-41 stand withdrawn as lacking unity with the other claims. Applicants have filed a petition to overturn this finding by the Examiner. Claims 43 and 44 are cancelled.

Claims 2, 3, 7-12, 14, 19-24, 28, 29 and 37 have been amended. Marked-up amended claims are appended hereto. Most of these amendments are responsive to the cancellation of claim 43. Only claims 2, 3 and 29 have been amended responsive to the rejection under 35 U.S.C. §112, second paragraph.

Claim 11 also stands rejected under 35 U.S.C. §112, second paragraph. Applicants respectfully traverse the rejection. Applicants note that BOPP is a term of the art for biaxially oriented polypropylene. As proof of this fact, applicants note that the Examiner correctly identified this material in the Touhsaent reference, even though the reference did not use the shortened term BOPP. Reconsideration and withdrawal of the rejection is respectfully requested.

Applicants further note that while all of the unrestricted claims have been rejected under 35 U.S.C. §112, at least for claims 1, 25-27 and (45) no reason for the rejection has been given and none is evident.

Claims 2-3, 11, 14-18, 20, 23-29, 32, 42-44 stand rejected under 35 U.S.C. §102 as being anticipated by Touhsaent. Applicants submit that claim 2 could not be anticipated unless claim 1 is also anticipated. Thus, all of the claims dependent on claim 1 (i.e., all the claims rejected under 35 U.S.C. §102) contain the limitations of claim 1 and are not *prima facie* anticipated for the same reason as claim 1. Claims 43 and 44 have been cancelled.

Applicants submit that Touhsaent does not provide a *prima facie* case for anticipation for the remaining (not cancelled) claims.

Claim 1 defines a specific group of materials as forming the *underlayer* of claim 1. Claim 1 also requires that there be an overlayer. The Examiner, in the rejection under 35 U.S.C. §102, cites the reference as teaching coating materials, none of which was claimed as being in the underlayer of claim 1. Rather one of the materials of Touhsaent is in the overlayer coating as

claimed in claim 4, which has been cancelled and in some of the remaining claims.

Furthermore, at least some of the dependent claims contain features that are not taught by Touhsaent. Thus, even if claim 1 were to be found to be *prima facie* anticipated by Touhsaent, these claims are not *prima facie* anticipated by Touhsaent.

In particular, claim 2 defines the overlayer as being free of particulate matter. In Touhsaent particulate matter is actually added to the polymer in the layer.

Claim 3 defines the overlayer as being wax free. Wax is added to the overlayer in Touhsaent.

Claims 1-3, 11, 14-18, 20, 23-29, 32, 42-44 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Touhsaent in view of Ueno.

Applicants submit that the references cited by the Examiner are not combinable. Thus, applicants submit that the claims are not *prima facie* obvious over Touhsaent in view of Ueno.

Touhsaent teaches providing a coating of a wet material on a plastic surface utilizing any of a range of coating means. (col. 5, lines 24-26.) This wet coating is dried to produce the desired coating. Before coating, the plastic is treated by one of an array of methods (col. 4, line 53-col. 5, line 23). One of these is the use of a primer material as specified. These primers do not include the underlayer materials that are claimed in claims 1 and 42, the independent claims in the group that stands rejected.

Ueno is concerned with a different technology altogether, namely the art of dye transfer printing. In this art a material ("the adhesive") is applied to a sheet from which it has good *releasability* (col. 2, lines 28-30). Its adhesion is activated by heat and pressure (col. 2, lines 5-10). In Touhsaent these are not the characteristics desired of the primer layer indicated above. On the contrary, the primer layer should provide good adhesion to the material on which it is coated (and to the layer coated on top of it). There is no hint that the adhesive of Ueno would adhere to the substrate on which it is coated. On the contrary, Ueno teaches that the adhesive should not adhere to the substrate on which it is coated but only to a substrate to which is adhered by heat and pressure. Ueno even provides a release material to assure this lack of adhesion (col. lines 23-30). If Ueno contains any teaching, it is a teaching against the present invention. Furthermore, there is no teaching that the adhesive of Ueno would adhere to the dried coating of Touhsaent without the use of heat and pressure, which is not provided in Touhsaent. Applicants note that the interposing layer of Ueno uses different materials from the layer of Touhsaent (col. 8, lines 61-64).

The methodology of Ueno is so different from that of Touhsaent that a person of the art would not consider combining teachings from the two.

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Furthermore, at least some of the dependent claims contain features that are not taught by Touhsaent or Ueno. Thus, even if claim 1 were to be found to be *prima facie* obvious in view of Touhsaent and Ueno, these claims are not *prima facie* anticipated by combination.


In particular, claim 2 defines the overlayer (from Touhsaent) as being free of particulate matter. In Touhsaent particulate matter is actually added to the polymer in the layer. Ueno has no such layer.

Claim 3 defines the overlayer (from Touhsaent) as being wax free. Wax is added to the overlayer in Touhsaent. Ueno has no such layer.

Claims 12, 19, 21, 22 all define various underlayer or overlayer materials that are not used in either Touhsaent or Ueno. Thus, there is no *prima facie* case of unpatentability from the combination.

In view of the above amendments and argument, applicants submit that the claims are patentable over the prior art cited. Notice to this effect is respectfully solicited.

Respectfully submitted,
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MARKED-UP AMENDED CLAIMS

2. (Twice Amended) A substrate according to [any of claims 1, 42 or 43] claim 1 or claim 42 wherein the overlayer is [substantially] free of particulate matter.
3. (Thrice Amended) A substrate according to [any of claims 1, 42 or 43] claim 1 or claim 42 wherein the overlayer is [substantially] wax and pigment free.
7. (Thrice Amended) A substrate according to [any of claims 1, 42 or 43] claim 1 or claim 42 wherein the sheet of plastic is polyethylene.
8. (Thrice Amended) A substrate according to [any of claims 1, 42 or 43] claim 1 or claim 42 wherein the sheet of plastic is vinyl.
9. (Thrice Amended) A substrate according to [any of claims 1, 42 or 43] claim 1 or claim 42 wherein the sheet of plastic is polycarbonate.
10. (Thrice Amended) A substrate according to [any of claims 1, 42 or 43] claim 1 or claim 42 wherein the sheet of plastic is PET.
11. (Thrice Amended) A substrate according to [any of claims 1, 42 or 43] claim 1 or claim 42 wherein the sheet of plastic is BOPP.
12. (Thrice Amended) A substrate according to any of claims [any of claims 1, 42 or 43] claim 1 or claim 42 wherein the overlayer comprises styrene butadiene copolymer.
14. (Thrice Amended) A substrate according to [any of claims 1, 42 or 43] claim 1 or claim 42 wherein the overlayer comprises ethylene acrylic acid copolymer.
19. (Thrice Amended) A substrate according to [any of claims 1, 42 or 43] claim 1 or claim 42 wherein the overlayer comprises polyvinyl pyridine.
20. (Thrice Amended) A substrate according to [any of claims 1, 42 or 43] claim 1 or claim 42 wherein the underlayer comprises amine terminated polyamide.

21. (Thrice Amended) A substrate according to [any of claims 1, 42 or 43] claim 1 or claim 42 wherein the underlayer comprises a silane coupling agent.
22. (Thrice Amended) A substrate according to [any of claims 1, 42 or 43] claim 1 or claim 42 wherein the underlayer comprises amino propyl triethoxy silane.
23. (Thrice Amended) A substrate according to [any of claims 1, 42 or 43] claim 1 or claim 42 wherein the underlayer has a weight of between 0.1 and 1 grams per square meter.
24. (Thrice Amended) A substrate according to [any of claims 1, 42 or 43] claim 1 or claim 42 wherein the underlayer has a weight of between about 0.3 and 0.5 grams per square meter.
28. (Thrice Amended) A substrate according to [any of claims 1, 42 or 43] claim 1 or claim 42 wherein the underlayer is substantially free of particulate matter.
29. (Thrice Amended) A substrate according to [any of claims 1, 42 or 43 comprising] claim 1 or claim 42 consisting of only two coating layers.
37. (Thrice Amended) A printing method comprising:
 providing a substrate according to [any of claims 1, 42 or 43] claim 1 or produced according to claim 30 or claim 45; and
 printing a toner image on the substrate.